REMARKS

Reconsideration of this application is respectfully requested.

Claims 1-6, and 24-31 are in the application. As an initial matter, Applicant would like to thank the Examiner for courtesies extended to Applicant's representative during the telephone interview of June 3, 2008 and subsequent withdrawal of the Advisory Action.

In the Official Action, the Examiner rejected claims 1, 2, 4, 6 and 24-27 under 35 U.S.C. §103(a) as being allegedly unpatentable over Sjoholm et al. (U.S. Patent No. 4,061,466) in view of Spring et al. (U.S. Patent No. 5,643,721) and further in view of Degen et al. (U.S. Patent No. 5,567,615). The Examiner admitted that "Sjoholm et al. fail to teach the ligand attached to the support via an epoxy linkage." The Examiner relied on Spring et al. and Degen et al. for allegedly overcoming this deficiency.

Applicant respectfully traverses this rejection, noting that the incorporation of an epoxy linkage would improperly modify the principle of operation of Sjoholm et al.'s teaching. Sjoholm et al. is directed to a biologically active composition and the use thereof. Sjoholm et al. incorporates a "three-dimensional network" with particles "containing the biologically active substance entrapped in the meshes of the network." (Col. 1, lines 9-11). The biologically active substance in Sjoholm et al. is required to be composed of "macromolecules", which are capable of being entrapped in the cross-linked polymer system. (Col. 2, lines 35-49). In fact, Example 9 of Sjoholm et al., upon which the Examiner relied, specifically discloses the use of bromosulphophthalein in "crosslinked agarose." Sjoholm et al. do not disclose the use of an epoxy-activated insoluble support, rather they rely upon physically entrapping biologically active macromolecules to perform the binding process.

Under *KSR*, the Examiner must provide a rationale for supporting the rejection. MPEP §2141(III). In the Office Action, the Examiner appears to be relying on the rationale set forth in

MPEP §2143(A), namely the combination of "prior art elements according to known methods to yield predictable results."

As explicitly stated in MPEP §2143(A), "the rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods **with no change in their respective functions**." (emphasis added). Further, MPEP §2143.01 states that, under *KSR*, "if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."

Sjoholm et al. clearly discloses the use of biologically-active macromolecules, which are entrapped in a crosslinked support. Rendering the support in Sjoholm et al. epoxy-activated would completely alter the function of the support of Sjoholm et al. Such alteration is contrary to the explicit requirements for establishing a *prima facie* case of obviousness under *KSR*, and is thus improper. Given this improper result, Sjoholm et al. cannot be properly combined with Spring et al., Degen et al. or other prior art to alter its three-dimensional, crosslinked system. It is respectfully submitted that claims 1 and 24, along with dependent claims 2, 4, 6 and 25-27, are patentable over Sjoholm et al., Spring et al. and Degen et al., each taken alone or in combination.

The Examiner then rejected claims 1-6 and 24-27 under 35 U.S.C. §103(a) as being allegedly unpatentable over Grahnen et al. (Eur. J. Biochem., 80, 573-580 (1997)) in view of Spring et al. and further in view of Degen et al. The Examiner admitted that "Grahnen et al. fail to teach the ligand attached to the support via an epoxy linkage" and relied on Spring et al. and Degen et al. for allegedly overcoming this deficiency.

Applicant respectfully traverses this rejection, noting that none of Grahnen et al., Spring et al., or Degen et al. disclose an apparatus or kit in which the ligand is used to bind to albumin,

which is specifically set forth in the present claims. Grahnen et al. is directed to a method of preparation of ligandin with glutathione-*S*-transferase activity from porcine liver cytolsol. Grahnen et al. do not teach a method or apparatus for binding albumin. Neither Spring et al. nor Degen et al. disclose an apparatus to bind albumin, and thus neither reference remedies the defects of Grahnen et al.

Further, similar to Sjoholm et al., as set forth above, Grahnen et al. specifically discloses the use of a particular, cross-linked support to bind a ligand. As set forth at p. 574 of Grahnen et al., sepharose 4B is first cross-linked with 2,3-dibromopropanol (to give Sepharose CL-4B). As further evidence that the sepharose in Grahnen et al. must be cross-linked, Grahnen et al. states that "when bromosulphophthalein was treated without Sepharose CL under identical conditions at 100°C, only insignificant changes were seen in the ultraviolet and visible absorption spectra." (Page 574). Thus, the cross-linked sepharose provides a meaningful role and Grahnen et al. clearly required the use of cross-linked sepharose to bind the ligand.

As set forth above, under the explicit requirements set forth under *KSR*, the Examiner may not alter the function of the elements upon which the Examiner relied on in an obviousness rejection. The use of a cross-linked sepharose, such as that disclosed in Grahnen et al., is functionally different from an epoxy-activated insoluble support, as is presently claimed. The Examiner allegedly relied upon the teachings of epoxy activation in Spring et al. and Degen et al. to overcome this deficiency. However, modifying the particular cross-linked sepharose with an epoxy linkage would impermissibly alter the principle of operation of Grahnen et al., and it is thus not proper. It is respectfully submitted that claims 1 and 24, along with dependent claims 2-6 and 24-27, are patentable over Grahnen et al., Spring et al. and Degen et al., each taken alone or in combination.

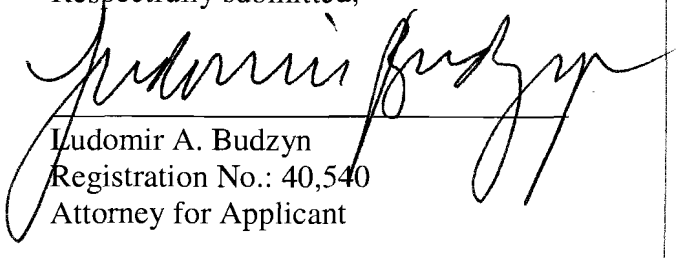
The Examiner rejected claims 24 and 27-31 under 35 U.S.C. §103(a) as being allegedly unpatentable over Pieper et al. (U.S. Published Patent Application No. 2002/0127739) in view of

Grahnen et al., and further in view of Spring et al. and further in view of Degen et al. The Examiner admitted that Pieper et al. fail to teach a ligand of bromosulfophthalein. The Examiner relied on Grahnen et al. for allegedly overcoming this deficiency. The Examiner further relied on Spring et al. and Degen et al. for the alleged notion of substituting an epoxy linkage.

Pieper et al. is directed to a method for sample preparation which, as admitted by the Examiner, does not disclose the use of bromosulfophthalein. Pieper et al. disclose a process using a binding agent affixed to beads made of various materials, including agarose. However, the Examiner relied upon Grahnen et al. for disclosing a ligand of bromosulfophthalein attached to agarose. As noted above, under *KSR*, the Examiner cannot alter the functionality or principle of operation of the relied-upon prior art elements. With reliance on Grahnen et al., the hypothetical combination of Pieper et al. and Grahnen et al. would result in bromosulfophthalein linked to a cross-linked sepharose. As discussed above, the functionality of this hypothetical combination cannot be altered. Accordingly, the hypothetical combination fails to yield the use of an epoxy-activated insoluble support, as set forth in claim 24. It is respectfully submitted that claim 24, along with dependent claims 27-31, are patentable over Pieper et al., Grahnen et al., Degen et al. and Spring et al., each taken alone or in combination.

Favorable action is earnestly solicited. If there are any questions or if additional information is required, the Examiner is respectfully requested to contact Applicant's attorney at the number listed below.

Respectfully submitted,



Ludomir A. Budzyn
Registration No.: 40,540
Attorney for Applicant

HOFFMANN & BARON, LLP
6900 Jericho Turnpike
Syosset, New York 11791
(973) 331-1700